

## Interim Status Report

**Title:** Development of an Agent-Based Supply Chain Management Simulation Tool Using the SCOR Model as the Foundation

**Type of Report:** Interim Status Report – 15 months

**Period Covered by Report:** February 21, 2009 – May 20, 2009

**Contract Number:** FA8103-08-C-0069

**Contractor's Title:** Project Manager

**Security Classification:** UNCLASSIFIED

**Distribution Statement:** Approved for public release; distribution is unlimited.

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### Summary

Overall, contract work is proceeding very smoothly. The contract is ahead of schedule and on budget based on the amount of work completed.

As discussed in the first quarterly report, Task 6 has been moved up in priority and has continued to be the focus of this last quarter.

### Task Status

#### Task 1: Review Phase I / Kickoff Phase II

Planned Completion Date: Mar 21, 2008  
Actual Completion Date: Mar 18, 2008  
Percent Complete: 100%

Task 1 is complete. J. Chris White and Robert Sholtes from [viaSim](#) met with the customer, Bill Lapach, at Tinker AFB on March 18. Meetings were also held with Dr. Wayne Jones, Director of Engineering, 448<sup>th</sup> Combat Sustainment Wing, and Mr. Russell Howard, Director of Engineering, OC-ALC.

During this meeting, priorities of the tasks for this Phase II effort were shifted to move optimization (Task 6) up in the schedule.

#### Task 2: Expand SCOR SimBRIX

Planned Completion Date: Apr 21, 2008  
Actual Completion Date: Jan 28, 2009  
Percent Complete: 100%

<b>REPORT DOCUMENTATION PAGE</b>			<i>Form Approved</i> <b>OMB No. 0704-0188</b>	
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<b>1. REPORT DATE (DD-MM-YYYY)</b> 22 JUN 2009		<b>2. REPORT TYPE</b> Interim Report		<b>3. DATES COVERED (From - To)</b> 21 Feb 2009 - 20 May 2009
<b>4. TITLE AND SUBTITLE</b> Development of an Agency-Based Supply Chain Management Simulation Tool Using the SCOR Model as the Foundation			<b>5a. CONTRACT NUMBER</b> FA8103-08-C-0069	
			<b>5b. GRANT NUMBER</b>	
			<b>5c. PROGRAM ELEMENT NUMBER</b>	
<b>6. AUTHOR(S)</b> Curt Sherrod			<b>5d. PROJECT NUMBER</b>	
			<b>5e. TASK NUMBER</b>	
			<b>5f. WORK UNIT NUMBER</b>	
<b>7. PERFORMING ORGANIZATION NAME(S) AND ADDRESS(ES)</b> viaSim 519 Interstate 30, #247      jcwhite@viasimcorp.com Rockwall, TX                      972-722-9255 75087			<b>8. PERFORMING ORGANIZATION REPORT NUMBER</b> C0069-ISR	
<b>9. SPONSORING / MONITORING AGENCY NAME(S) AND ADDRESS(ES)</b> Oklahoma City Air Logistics Center 3001 Staff Drive Tinker AFB, OK 73145			<b>10. SPONSOR/MONITOR'S ACRONYM(S)</b>	
			<b>11. SPONSOR/MONITOR'S REPORT NUMBER(S)</b>	
<b>12. DISTRIBUTION / AVAILABILITY STATEMENT</b> Approved for public release; distribution is unlimited.				
<b>13. SUPPLEMENTARY NOTES</b> Solicitation Type: SBIR. Topic Number and Title: DXC Development of an Agent-Based Supply Chain Management Simulation Tool Using the SCOR Model as the Foundation. Phase 2. Topic Sponsor: Air Force. Year: 2009. This report contains color.				
<b>14. ABSTRACT</b> Overall, contract work is proceeding very smoothly. The contract is ahead of schedule and on budget based on the amount of work completed. As discussed in the first quarterly report, Task 6 has been moved up in priority and has continued to be the focus of this last quarter.				
<b>15. SUBJECT TERMS</b> SCOR				
<b>16. SECURITY CLASSIFICATION OF:</b>			<b>17. LIMITATION OF ABSTRACT</b> SAR	<b>18. NUMBER OF PAGES</b> 6
<b>a. REPORT</b> Unclassified	<b>b. ABSTRACT</b> Unclassified	<b>c. THIS PAGE</b> Unclassified		
			<b>19b. TELEPHONE NUMBER</b> (include area code) 405-736-2158 becky.medina@tinker.af.mil	

Task 2 was put on hold with the reprioritization of Task 6 (optimization) by the USAF customer, but is now complete.

Task 3: Develop non-SCOR SCM SimBRIX

Planned Completion Date: May 21, 2008  
Actual Completion Date: Jan 26, 2009  
Percent Complete: 100%

Task 3 was put on hold with the reprioritization of Task 6 (optimization) by the USAF customer, but is now complete.

Task 4: Develop asset management SimBRIX

Planned Completion Date: Jul 21, 2008  
Actual Completion Date: Apr 24, 2009  
Percent Complete: 100%

Task 4 was started but is now on hold with the reprioritization of Task 6 (optimization) by the USAF customer. This task has been completed on schedule.

Task 5: Add analysis framework (previously referred to as: Add sensitivity analysis features)

Planned Completion Date: Oct 21, 2008  
Actual Completion Date: N/A  
Percent Complete: 95%

The development work on Task 5 is complete and this function is now in testing.

Task 6: Add optimization features

Planned Completion Date: Jul 21, 2009  
Actual Completion Date: N/A  
Percent Complete: 98%

The development work on Task 6 is complete and this function is now in testing.

Task 7: Develop distributed version of SimBLOX

Planned Completion Date: Jan 21, 2009  
Actual Completion Date: March 17, 2009  
Percent Complete: 100%

Task 7 is complete. As part of the Phase II work, we were able to complete development of a test application that demonstrated how several remote "servers" could be deployed and used to perform the simulation across the network

Task 8: Explore web-based version of SimBLOX

Planned Completion Date: Feb 21, 2009  
Actual Completion Date: Feb 05, 2009

Percent Complete: 100%

Task 8 is complete. SimBLOX has chosen a vendor, Wizmo, which will allow us to offer our products as a "Software-as-a-Service" product over the web.

#### Task 9: Explore connection with external database

Planned Completion Date: Mar 21, 2009

Actual Completion Date: Mar 1, 2009

Percent Complete: 100%

Task 9 is just beginning therefore we have little to report at this time. This task was completed on budget and ahead of schedule that will allow users to publish templates of a specific manufacturer, for example, so others could simply use that definition within their model.

#### Task 10: Develop SimBLOX portal

Planned Completion Date: May 21, 2009

Actual Completion Date: April, 22, 2009

Percent Complete: 100%

Task 10 is complete. The development task sought to employ a portal application for model template sharing amongst users.

#### Task 11: Test software

Planned Completion Date: May 21, 2009

Actual Completion Date: Ongoing

Percent Complete: 90%

Task 11 is ongoing and is handled as part of our routine software development process. Thus, it will not be specifically addressed in a status report.

#### Task 12: Conduct test scenarios

Planned Completion Date: Jun 21, 2009

Actual Completion Date: Ongoing

Percent Complete: 90%

Task 12 is ongoing and is handled as part of our routine software development process. Thus, it will not be specifically addressed in a status report.

#### Task 13: Collect feedback

Planned Completion Date: Jul 21, 2009

Actual Completion Date: Ongoing

Percent Complete: 90%

Task 13 is ongoing and is handled as part of our routine software development process. Thus, it will not be specifically addressed in a status report.

#### Task 14: Write Final Report

Planned Completion Date: Aug 21, 2009  
Actual Completion Date: N/A  
Percent Complete: 0%

Task 14 has not begun and will not be covered in this status report.

#### **Future Plans**

There are no foreseeable problems, issues, or delays at this point. The development was completed on Task 6 (optimization) during the first quarter of 2009. The focus for the next 3-month status report will be testing and completion of Tasks 5,6,7,9, and 10.

#### **Itemized Man-Hours and Costs**

(Based on hours/cost invoiced through May 20, 2009, approximately 65 weeks ACO)

Planned Man-Hours to date: 5160	Planned Contract Cost to date: \$ 624,260
Actual Man-Hours to date: 5678	Actual Contract Cost to date: \$ 741,425

Actual contract cost includes travel expenses associated with Task 1 (kick-off meeting).  
Breakout of actual man-hours is as follows:

<b>Role</b>	<b>Planned Hours</b>	<b>Actual Hours</b>	<b>Actual Cost (including 99.18% OH)</b>
Principal Investigator	720 hrs	715 hrs	\$ 113,825
Sr. Developers	2760 hrs	2490 hrs	\$ 387,471
Developers	288 hrs	654 hrs	\$ 79,251
Software Quality Assurance	720 hrs	963.5 hrs	\$ 52,201
Project Administration	480 hrs	554.5 hrs	\$ 44,106
Travel	\$ 1,116.13	\$ 2,460.21	\$ 2,460
Profit (@ 7%)	\$ 24,299	\$ 43,188	\$ 43,188
Total			\$ 741,425

Differences between planned and actual hours/costs are due to moving Task 6 (optimization) up in the schedule, and the project is on schedule at this point. Hours and costs accumulated to date are commensurate with work performed.

All future invoices and reports will show new rates as ViaSim's cost structure has changed. New rates are as listed below:

OH Rate – 55.58%  
G&A Rate – 57.46%

#### **Contract Deliveries Status**

\*\*Reports 3 and 4 under CLIN 0001-A003 and report 1 under CLIN 0001-A002 were delivered to [becky.roberts@tinker.af.mil](mailto:becky.roberts@tinker.af.mil) which had changed to [becky.medina@tinker.af.mil](mailto:becky.medina@tinker.af.mil). Upon discovery of this on 9 Apr 2009 all reports were resent to the new email address.

Contract start date: 21 Feb 2008

Contract end date: 20 Feb 2010 (24 months after contract start date)

CLIN 0001-A001 (Final Scientific and Technical Report) – 1 report, due 30 days after contract completion (24 months)

Due date for CLIN 0001-A001: 20 Mar 2010

No progress update on this deliverable yet.

CLIN 0001-A002 (Nonproprietary Phase II Summary Reports) – 2 reports, due 30 days after first 12 months and second 12 months

Due dates for CLIN 0001-A002: 20 Mar 2009 and 20 Mar 2010

Report 1: Completed. Emailed to Becky Roberts ([becky.roberts@tinker.af.mil](mailto:becky.roberts@tinker.af.mil)) per contract FA8103-08-C-0069 on 20 Feb 2009.

Report 2: No progress update on this deliverable yet

CLIN 0001-A003 (Interim Reports) – 6 reports, due 30 days after 3, 6, 9, 15, 18, and 21 months

Due dates for CLIN 0001-A003:

Report 1: 20 Jun 2008

Report 2: 20 Sep 2008

Report 3: 20 Dec 2008

Report 4: 20 Jun 2009

Report 5: 20 Sep 2009

Report 6: 20 Dec 2009

Status:

Report 1: Completed. Emailed to Becky Roberts ([becky.roberts@tinker.af.mil](mailto:becky.roberts@tinker.af.mil)) per contract FA8103-08-C-0069 on 18 Jun 2008 (ahead of contract schedule).

Report 2: Completed. Emailed to Becky Roberts ([becky.roberts@tinker.af.mil](mailto:becky.roberts@tinker.af.mil)) per contract FA8103-08-C-0069 on 28 Aug 2008 (ahead of contract schedule).

Report 3: Completed. Emailed to Becky Roberts ([becky.roberts@tinker.af.mil](mailto:becky.roberts@tinker.af.mil)) per contract FA8103-08-C-0069 on 19 Dec 2008 (ahead of contract schedule).

Report 4: This is the current report. Emailed to Becky Medina ([becky.medina@tinker.af.mil](mailto:becky.medina@tinker.af.mil)) per contract FA8103-08-C-0069 on 19 Jun 2009 (ahead of contract schedule).

Report 5: No progress update on this deliverable yet.

Report 6: No progress update on this deliverable yet.

CLIN 0001-A004 (Software Prototype) – due at contract completion (24 months)

Due date for CLIN 0001-A001: 20 Feb 2010

No progress update on this deliverable yet.

**Report Preparer**

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**Appendices**

None